



FEATURE

What can the ocean floor tell us about tsunamis?

NCEI scientists are developing computer models aimed to take the surprise out of tsunamis. Their digital elevation models integrate ocean depth data with coastal land elevation data to visualize relief in coastal zones.

SPOTLIGHT

NOAA study shows as U.S. drilling surged, methane emissions didn't

A new NOAA study shows that methane emissions from the United States did not grow significantly from 2000 to 2013 and are not likely to have been an important driver of the increase in atmospheric methane levels observed worldwide after 2007, as other studies have suggested. To examine whether U.S. oil and gas development could be playing a role, GMD scientist Lori Bruhwiler and an international team of scientists analyzed methane levels in air samples collected by NOAA aircraft around the U.S. They did not find evidence of large increases in methane emissions.

Luck of the Irish Sea

What lies beneath the surface of Ireland's notoriously rough waters has recently been revealed by Irish researchers. Their *Real Map of Ireland* shows Ireland's marine territory extending far beyond the coastline up to 220 million acres, an area more than 10 times its land mass. The data from that seabed mapping program is available through the International Hydrographic Organization Data Center for Digital Bathymetry, which NOAA's NCEI hosts.

Carbon dioxide levels rose at record pace for 2nd straight year

Carbon dioxide levels measured at NOAA's GMD Mauna Loa Baseline Atmospheric Observatory rose by three parts per million to 405.1 parts per million (ppm) in 2016, an increase that matched the record jump observed in 2015. The two-year, 6-ppm surge in the greenhouse gas between 2015 and 2017 is unprecedented in the observatory's 59-year record.

AWARDS AND IN OUR COMMUNITY

- Raul J. Alvarez II of CSD's Atmospheric Remote Sensing research group received a NOAA Silver Sherman Award.
- CSD's Rich McLaughlin received recognition for four decades of outstanding contributions and his design of an elegant airborne chemical inlet for trace gas sampling aboard aircraft.
- NOAA ESRL and CIRES scientists Joseph Olson, Eric James, and Kathleen Lantz received the 2017 Annual Achievement Award from the Utility Variable-Generation Integration Group.
- GMD CIRES and NOAA researchers show and report what happens to a rubber weather balloon at 30,000 m. The article, first published in the February issue of *BAMS*, was picked up by *Science*, which featured the video created by CIRES/GMD's Patrick Cullis in their "*Science Shots*" column.
- GMD's Pieter Tans spoke with Colorado Matters host Nathan Heffel about NOAA's climate findings.
- NOAA has teamed up with the Bureau of Reclamation to spur innovation toward improved forecasts with the Sub-Seasonal Climate Forecast Rodeo competition that offers up to \$800K in prizes.
- The latest GOES satellite, now in successful orbit, is re-designated as GOES-16.
- Each spring the Boulder/Denver NWS offers spotter training from March into May. The 2017 schedule is available on their website.
- NOAA and other agencies have teamed up to accelerate Earth system prediction, with the goal of improving short- and long-term prediction of weather, climate, ocean, and sea ice conditions.

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NOAA Boulder



National Weather Service
(NWS)

Space Weather Prediction Center (SWPC)

Weather Forecast Office (WFO)
Boulder/Denver

National Environmental
Satellite, Data, and
Information Service (NESDIS)

National Centers for Environmental
Information (NCEI)

Center for Coasts,
Oceans, and
Geophysics (CCOG)

Center for Weather
and Climate (CWC)

Office of Oceanic and
Atmospheric Research (OAR)

Earth System Research
Laboratory (ESRL)

National Ocean Service (NOS)

Chemical Sciences
Division (CSD)

Global Systems
Division (GSD)

Global Monitoring
Division (GMD)

Physical Sciences
Division (PSD)

BLDC: Boulder Labs Diversity Council

BOCC: Boulder Outreach and Coordinating Council

CCOG: Center for Coasts, Oceans, and Geophysics

CSD: Chemical Sciences Division

CWC: Center for Weather and Climate

EEO: Equal Employment Opportunity

ESRL: Earth System Research Laboratory

GMD: Global Monitoring Division

GSD: Global Systems Division

NCEI: National Centers for Environmental Information (formerly NGDC)

NESDIS: National Environmental Satellite, Data, and Information Service

NIDIS: National Integrated Drought Information System

NOAA: National Oceanic and Atmospheric Administration

NOS: National Ocean Service

NWS: National Weather Service

OAR: Office of Oceanic and Atmospheric Research or NOAA Research

PSD: Physical Sciences Division

SWPC: Space Weather Prediction Center

WFO: Weather Forecast Office